

at least one carcass ply comprising at least a first series of strip sections and at least one second series of strip sections circumferentially distributed in a mutually-alternated sequence around a geometric rotation axis of the tyre;

each of the strip sections comprising longitudinal and parallel thread elements at least partly coated with at least one layer of elastomer material;

each of the strip sections extending in a substantially U-shaped configuration to define two side portions, mutually spaced apart in an axial direction, and a crown portion, extending at a radially-outer position between the side portions; and

a pair of annular reinforcing structures applied against end flaps of the strip sections of the first series and overlapped by end flaps of the strip sections of the at least one second series; wherein each of the annular reinforcing structures comprises:

an annular anchoring insert, substantially in a form of an annulus, disposed coaxially relative to the carcass structure, comprising one or more elongated elements extending in radially-concentric coils; and

at least one filling body disposed at a radially-outer position relative to the annular anchoring insert.

44. (twice amended) The carcass structure of claim 43, wherein each of the annular reinforcing structures comprises an axially-inner side turned towards the end flaps of the strip sections of the first series and an axially-outer side turned towards the end flaps of the strip sections of the at least one second series.

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45. (once amended) The carcass structure of claim 43, wherein the crown portions of the strip sections of the first series and the crown portions of the strip sections of the at least one second series are disposed in mutual side-by-side relationship along a circumferential extension of the carcass structure.

46. (twice amended) The carcass structure of claim 45, wherein the side portions of each strip section of the first series are each partly covered with a side portion of at least one adjacent strip section of the at least one second series at a stretch included between a radially-outer edge of respective annular reinforcing structures and a transition region between the side portions and the crown portion of the strip sections of the first series.



49. (once amended) The carcass structure of claim 43, wherein the strip sections of the first series are disposed according to a circumferential distribution pitch corresponding to a multiple of a width of the strip sections of the first series, or

wherein the strip sections of the at least one second series are disposed according to a circumferential distribution pitch corresponding to a multiple of a width of the strip sections of the at least one second series.

50. (once amended) The carcass structure of claim 43, wherein each strip section comprises regions of increased width at areas close to inner circumferential edges of the carcass structure.

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51. (once amended) The carcass structure of claim 50, wherein the thread elements of each strip section are mutually spaced apart at the regions of increased width.

52. (once amended) The carcass structure of claim 43, wherein each of the strip sections comprises a width greater than or equal to 3 mm and less than or equal to 15 mm.

53. (once amended) The carcass structure of claim 43, wherein each of the strip sections comprises greater than or equal to three thread elements and less than or equal to eight thread elements.

54. (once amended) The carcass structure of claim 43, wherein the thread elements of the strip sections are disposed according to a mutual distance between centers greater than or equal to 1.5 times a diameter of the thread elements.

- 55. (once amended) The carcass structure of claim 43, wherein the annular anchoring inserts each comprise a single series of radially-superposed concentric coils.
- 56. (once amended) The carcass structure of claim 43, wherein the at least one filling body radially extends from a respective annular anchoring insert, tapering away from the respective annular anchoring insert.

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57. (once amended) The carcass structure of claim 43, wherein a ratio of a radial extension of the annular anchoring insert to a radial extension of the at least one filling body is greater than or equal to 0.5:1 and less than or equal to 2.5:1.

58. (once amended) The carcass structure of claim 43, wherein the at least one filling body comprises a hardness greater than or equal to 48° Shore D at 23°C and less than or equal to 55° Shore D at 23°C.

59. (three times amended) A tyre for a two-wheeled vehicle, comprising a carcass structure made by a method comprising:

preparing strip sections, each comprising longitudinal and parallel thread elements at least partly coated with at least one layer of a first elastomer material;

laying down and circumferentially distributing at least a first series of the strip sections on a toroidal support, each of the strip sections of the first series extending in a substantially U-shaped configuration around a cross-section outline of the toroidal support to define two side portions, mutually spaced apart in an axial direction, and a crown portion, extending at a radially-outer position between the side portions; and

applying annular reinforcing structures against end flaps of the strip sections of the first series:

wherein formation of each annular reinforcing structure comprises:

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laying down one or more elongated elements in radially-concentric coils to form an annular anchoring insert, substantially in a form of an annulus, disposed coaxially relative to the carcass structure;

forming at least one filling body of a second elastomer material;

joining the at least one filling body to the annular anchoring insert at a radially-outer position relative to the annular anchoring insert; and

laying down and circumferentially distributing at least one second series of the strip sections on the toroidal support, each of the strip sections of the at least one second series extending in a substantially U-shaped configuration around a cross-section outline of the toroidal support, between two strip sections of the first series, to define a carcass ply;

wherein each of the strip sections of the at least one second series defines two side portions, mutually spaced apart in an axial direction and having end flaps overlapping the annular reinforcing structures, and a crown portion, extending at a radially-outer position between the side portions, and

wherein the second elastomer material may be the same as or different than the first elastomer material.

60. (three times amended) A tyre for a two-wheeled vehicle, comprising:

at least one carcass ply comprising at least a first series of strip sections and at least one second series of strip sections circumferentially distributed in a mutually-alternated sequence around a geometric rotation axis of the tyre;

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each of the strip sections comprising longitudinal and parallel thread elements at least partly coated with at least one layer of elastomer material;

each of the strip sections extending in a substantially U-shaped configuration to define two side portions, mutually spaced apart in an axial direction, and a crown portion, extending at a radially-outer position between the side portions; and

a pair of annular reinforcing structures applied against end flaps of the strip sections of the first series and overlapped by end flaps of the strip sections of the at least one second series; wherein each of the annular reinforcing structures comprises:

an annular anchoring insert, substantially in a form of an annulus, disposed coaxially relative to the carcass structure, comprising one or more elongated elements extending in radially-concentric coils; and

at least one filling body disposed at a radially-outer position relative to the annular anchoring insert.

Add new claims 61-75, as follows:



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1300 I Street, NW Washington, DC 20005 202.408.4000 Fax 202.408.4400 www.finnegan.com --61. (new) The tyre of claim 60, wherein each of the annular reinforcing structures comprises an axially-inner side turned towards the end flaps of the strip sections of the first series and an axially-outer side turned towards the end flaps of the strip sections of the at least one second series.

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62. (new) The tyre of claim 60, wherein the crown portions of the strip sections of the first series and the crown portions of the strip sections of the at least one second series are disposed in mutual side-by-side relationship along a circumferential extension of the carcass structure.

63. (new) The tyre of claim 62, wherein the side portions of each strip section of the first series are each partly covered with a side portion of at least one adjacent strip section of the at least one second series at a stretch included between a radially-outer edge of respective annular reinforcing structures and a transition region between the side portions and the crown portion of the strip sections of the first series.

64. (new) The tyre of claim 63, wherein covering of the side portions of each strip section of the first series progressively decreases starting from a maximum value close to the radially outer edge of the respective annular reinforcing structures until reaching a zero value at the transition region between the side portions and the crown portion of the strip sections of the first series.

65. (new) The tyre of claim 60, wherein the side portions of the strip sections radially converge in a direction of a geometric rotation axis of the carcass structure.

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66. (new) The tyre of claim 60, wherein the strip sections of the first series are disposed according to a circumferential distribution pitch corresponding to a multiple of a width of the strip sections of the first series, or

wherein the strip sections of the at least one second series are disposed according to a circumferential distribution pitch corresponding to a multiple of a width of the strip sections of the at least one second series.

- 67. (new) The tyre of claim 60, wherein each strip section comprises regions of increased width at areas close to inner circumferential edges of the carcass structure.
- 68. (new) The tyre of claim 67, wherein the thread elements of each strip section are mutually spaced apart at the regions of increased width.
- 69. (new) The tyre of claim 60, wherein each of the strip sections comprises a width greater than or equal to 3 mm and less than or equal to 15 mm.
- 70. (new) The tyre of claim 60, wherein each of the strip sections comprises greater than or equal to three thread elements and less than or equal to eight thread elements.
- 71. (new) The tyre of claim 60, wherein the thread elements of the strip sections are disposed according to a mutual distance between centers greater than or equal to 1.5 times a diameter of the thread elements.

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